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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,687	07/16/2004	Renatus Josephus Van Der Vleuten	NL020028	2755
24738	7590	07/19/2007	EXAMINER	
PHILIPS ELECTRONICS NORTH AMERICA CORPORATION INTELLECTUAL PROPERTY & STANDARDS 370 W. TRIMBLE ROAD MS 91/MG SAN JOSE, CA 95131			MOON, SEOKYUN	
		ART UNIT	PAPER NUMBER	
		2629		
		MAIL DATE	DELIVERY MODE	
		07/19/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/501,687	VAN DER VLEUTEN ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Seokyun Moon	2629

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 10 May 2007.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 16 July 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____.                                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____.                         |

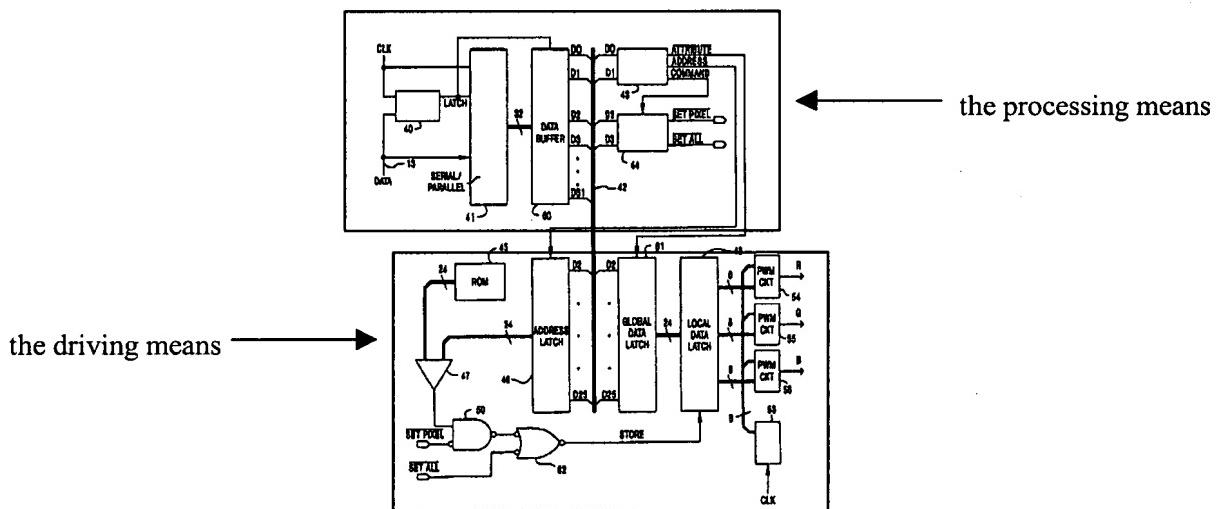
**DETAILED ACTION*****Response to Arguments***

1. The Applicants' arguments filed on May 10, 2007 have been fully considered but they are not persuasive.

Regarding claims 1 and 17, the Applicants pointed out that the prior art disclosed in the previous Office Action, Ryan (US 6,061,039,) does not teach “*data processing means for receiving encoded data provided in a compressed format according to an international standard and for decoding the encoded data to provide the data to the drive means*”.

Examiner respectfully disagrees.

Ryan does expressly teach the processing means [drawing 1 provided below, which is equivalent to fig. 9 of Ryan] for receiving encoded data provided in a compressed format [abstract lines 8-10, col. 2 lines 51-53, and col. 3 lines 7-8] according to an international standard (“*run length encoded global command*”, i.e. RLE) [col. 3 lines 8-11] and for providing data to the drive means [drawing 1] [col. 8 lines 12-44].



Drawing 1

Furthermore, Ryan inherently teaches the data processing means decoding the encoded data to provide the decoded data to the drive means since it is required for the data processing means of Ryan to decode the data encoded in a compressed format in order to control the pulse width modulation circuits properly according to the encoded data, thus to allow the device of Ryan to display images with right colors.

Regarding claims 16 and 20, the Applicants pointed out that Ryan does not teach, “*a data processor configured to receive encoded data that includes addressing data as a part of an encoded data portion*”.

Examiner respectfully disagrees.

Ryan does teach a data processor configured to receive encoded data (“D0” and “D1”) that includes addressing data as a part of an encoded data portion [col. 7 lines 48-50].

#### *Claim Objections*

2. **Claim 3** is objected to because of the following informalities: “*that at includes at least one of decoding*”. For further examination purpose, “at” will be omitted.

Appropriate correction is required.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan in view of Wolfgang et al. (DE 19950839, herein after “*Wolfgang*”).

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As to **claim 1**, Ryan teaches a display device [col. 2 lines 64-65] comprising a substrate ("substrate 14") [fig. 2], the substrate is provided with groups of pixels ("pixel-generating element 12") [col. 3 lines 58-59 and col. 4 line 18], wherein each group of pixels is within a separate defined area On the substrate [figs. 1 and 2]; and

a plurality of semiconductor devices ("ROM 45") [fig. 9], wherein each semiconductor device is mainly associated with a different pixel [fig. 2], and wherein each semiconductor device is positioned within the defined area of the pixel that is mainly associated with [fig. 1], the semiconductor device being provided with drive means [drawing 1 provided on page 3 of this Office Action] for driving pixels dependent on data to be displayed and with data processing means [drawing 1] for receiving encoded data provided in a compressed format [abstract lines 8-10, col. 2 lines 51-53, and col. 3 lines 7-8] according to an international standard ("run length encoded global command", i.e. RLE) [col. 3 lines 8-11] and for providing data to the drive means [col. 8 lines 12-44].

Ryan inherently teaches the data processing means decoding the encoded data to provide the decoded data to the drive means since it is required for the data processing means of Ryan to decode the data encoded in a compressed format in order to control the pulse width modulation circuits properly according to the encoded data, thus to allow the device of Ryan to display images with right colors.

Ryan does not teach each of the semiconductor devices being associated with a group of pixels.

However, Wolfgang [abstract and fig. 3] teaches a display device comprising a plurality of control circuits and an array of display elements, wherein each of the control circuits is associated with a sub-array of display elements.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the display device of Ryan to associate each of the semiconductor devices with a group of pixels instead of a pixel, as taught by Wolfgang, in order to reduce the number of semiconductor devices required to drive the display, thus to reduce the manufacturing cost of the display device, when the

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display device is used for a large display, wherein a plurality of pixels included in the large display are driven with same data.

As to **claim 2**, Ryan as modified by Wolfgang [Ryan: fig. 9] teaches the semiconductor devices being provided with means (Ryan: a combination of “*address register 46*”, ”*ROM 45*” and “*comparator 47*”) for recognizing the location of the group of pixels [Ryan: col. 7 lines 59-60].

As to **claim 3**, Ryan as modified by Wolfgang teaches the data processing means having a decoding function including decoding data, which is encoded using conventional compressed techniques [Ryan: abstract lines 8-10] as discussed with respect to the rejection of claim 1.

Ryan as modified by Wolfgang does not expressly teach using JPEG or MPEG as a data compression technique.

However, Examiner takes Official Notice that it is well known in the art to use JPEG or MPEG as a data compression technique.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to specify the device of Ryan as modified by Wolfgang to use JPEG or MPEG as a data compression technique, in order to allow the device of Ryan as modified by Wolfgang to compress data optimally depending on the type of data to be encoded.

As to **claim 4**, Ryan teaches the addressing rate of the semiconductor devices being variable [col. 7 lines 3-6].

As to **claim 5**, Ryan teaches that the drive means for different parts of the display have separate control means (a combination of “*address register 46*” and “*comparator 47*”) for varying the addressing rate of the associated semiconductor devices [col. 6 line 59 - col. 7 line 6].

As to **claim 6**, Ryan teaches the driving means comprising a frame memory (“*global data latch 61*”) [col. 8 lines 15-18] and means (“*decoder 43*”) [fig. 9] to detect changes between the contents (“*D<sub>0</sub>* - *D<sub>n</sub>*”) of the subsequent frames.

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As to **claim 7**, all of the claim limitations have already been discussed with respect to the rejection of claim 6.

As to **claim 8**, Ryan teaches that encoded data to be displayed is transported to at least a group of the semiconductor devices ("ROM 45") after detecting a certain amount of change between the contents of subsequent frames or of subsequent sub-frames (after the "decoder 43" determines the type of the command to output depending on the input "D<sub>0</sub>" and "D<sub>1</sub>") [col. 6 lines 10-17].

As to **claim 9**, Ryan as modified by Wolfgang [Ryan: fig. 9] teaches encoded data to be displayed being transported to at least a part of the group of the semiconductor devices at full frame rate (Ryan: "*a single data transfer cycle*") [Ryan: col. 3 lines 11-14].

As to **claims 10 and 11**, Ryan teaches at least a part of the group of the semiconductor device receiving the most significant part ("D<sub>n</sub>") of the data and refinement part ("D<sub>2</sub>") of the data to be displayed [col. 7 lines 51-57].

As to **claim 12**, Ryan teaches the driving means for the display comprising an encoding function [col. 10 lines 13-15].

As to **claims 13 and 14**, Ryan teaches the means for recognizing the location having a read-only structure ("ROM 45") [col. 7 lines 59-60].

As to **claim 15**, Ryan [fig. 9] teaches the drive means having a bus structure ("*common bus structure 13*").

As to **claim 16**, Ryan teaches the encoded data ("D<sub>0</sub>" and "D<sub>1</sub>") including addressing data as a part of an encoded data portion [col. 7 lines 48-50].

As to **claim 17**, all of the claim limitations have already been discussed with respect to the rejection of claim 1.

As to **claim 18**, all of the claim limitations have already been discussed with respect to the rejection of claim 3.

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As to **claim 19**, all of the claim limitations have already been discussed with respect to the rejection of claim 16.

As to **claim 20**, all of the claim limitations have already been discussed with respect to the rejection of claims 1 and 16.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seokyun Moon whose telephone number is (571) 272-5552. The examiner can normally be reached on Mon - Fri (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (572) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 16, 2007

- s.m.



SUMATI LEFKOWITZ  
SUPERVISORY PATENT EXAMINER